DEVINE

Trono series
Trono 10 / Trono 12 / Trono 15
Passive speakers

User manual

Any information and illustrations shown in this user manual are subject to change without further notice.

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Safety instructions

WARNING!

This speaker is not designed for use outside! Keep this speaker away from moisture and rain at all times! Exposing the speaker to moisture and rain may cause permanent damage to the housing and components!

WARNING!

This loudspeaker is capable of producing a sound pressure level which can be harmful for humans and animals when used incorrectly and/or without protection. Possible permanent hearing loss may occur when humans or animals are exposed to high sound pressure levels for a longer period of time.

This unit must be operated by, or under the supervision of an adult. This device is not suitable for children.

Every person involved with the installation, operation and maintenance of this device has to:
- Be qualified
- Follow the instructions of this manual

- Make sure there is no damage caused by transport. If the device seems damaged from the outside, do not use it and contact your dealer for more information and consultation.
- To make sure the device maintains in perfect condition and for safe operation, it is necessary for the user to follow the instructions and warning notes of this user manual.
- Damage caused by improper use or modifications to the device are not covered by warranty.
- This device does not have any user-serviceable parts inside. Servicing of this device needs to be done by qualified technicians.

Important notes regarding safety and health:

- Never leave cables lying around
- Do not open the device and do not modify any hard- or software of this unit.
- Do not insert this object into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the system on and off frequently as this will reduce the lifespan of the device.
- Do not drive the inputs of the fixture with a signal larger than required to work at full performance.
- Only use this device indoor, avoid contact with water, moist or other liquids. Do not place items filled with liquids on top of the unit.
- Avoid nearby flames or heat sources, do not place this device near flammable liquids, gas or flammable items.
- Always disconnect the device when it is not in use for a longer period of time, when servicing is needed or when the device needs cleaning.
- Never use other types of cables than specified in the manual, do not use defective or bad functioning cables. Contact your dealer when the included or required cables do not work properly with this device.
- When the device has been exposed to large temperature differences (for example, transport from outdoor to indoor), do not connect the device immediately. Do not activate the unit until it has reached room temperature, as moist might build up inside the unit, which may cause short circuits and/or electrical shocks.

Guidelines and types of use:
- This device is intended to be used by professionals on stage, in theatres, clubs and other equal venues.
- This device is not suitable for children and always needs to be operated by an adult.
- Only use the device when the environment is suitable and will not cause any damage. Do not use the product in moist or dusty environments, or where long-term damage may occur such as:
    - indoor swimming pools where chlorine is used.
    - Beaches, where sand and salt are present.
    - Temporary outdoor setups, without protection
    - Indoor areas where intense heat sources are present or where the temperature exceeds levels which are comfortable for humans.
- Avoid shocks and collision during use and transport. Do not transport the device while in use. Avoid brute force during the installation and operation of this device.
- Familiarize yourself with the functions of the device before use. Do not allow operation of the device by unskilled or unqualified people.
- Use of the device in other ways than described in this user manual may cause damage and injury. Ayra does not take responsibility for any damage or injury caused by improper use.

Storage and transport:
- This device is intended for mobile use. When transported, use the original packaging of the product, or a fitting flightcase, preferably filled with foam.
- This device is not intended for permanent use. Operation breaks will ensure that the lifespan of the device remains unchanged.
- If the device is not used for a longer period of time, disconnect it from its power source and store it in its original packaging, or in a fitting flightcase.
- Store the device indoor, dry and do not expose the device to extreme temperature differences.

Housing:
- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be avoided at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device
- Check the fixture and screws for corrosion. Corrosion should not be present on the fixture. Contact your dealer or a skilled technician when corrosion is found on the fixture
- Every power or signal chassis/connector should be mounted tightly. Do not use the device when connectors are loose.
- Do not use speaker cables of which the cores are visible (except the ends when using wire terminals). Contact your dealer for a replacement if needed.
- Avoid the buildup of dust and dirt. Clean the exterior of the fixture every month with a dry or damp cloth. When using the device intensively, the cleaning frequency needs to be increased.

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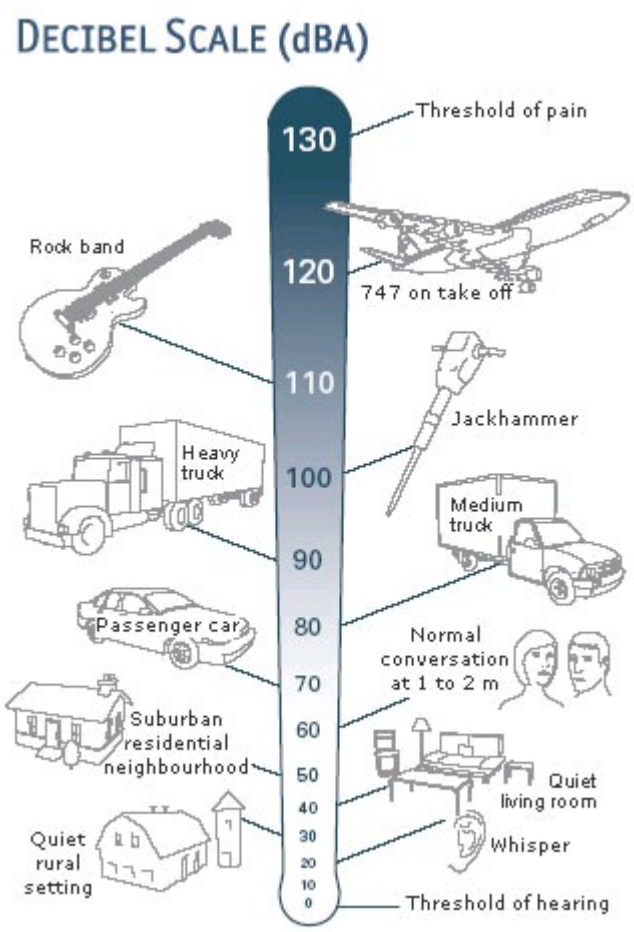
- Avoid exposure to high sound pressure levels for a longer period of time. See the charts on this page for more information about sound pressure levels and exposure to high levels.

Continuous dB	Permissible exposure time
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	7.5 minutes
106	3.75 minutes (<4 minutes)
109	1.875 minutes (<2 minutes)
112	0.9375 minutes (<1 minute)
115	0.46875 minutes (+/- 30 seconds)



- When installing this speaker on a speaker stand or distance pole, always tighten the screw knobs firmly.
- When using this speaker for the first time, set the gain settings on the amplifier (module) on a minimum level. After this, raise the volume to a comfortable listening level (not at its maximum level). The speaker needs to perform on a moderate level for several hours to perform on its full potential, when used for the first time.
- When transporting the speaker on a cart, use caution during movement. Prevent the cart and speaker combination from tipping over as this may cause serious injury.

Introduction

Thank you for purchasing this passive Devine Trono speaker. To make sure you use this loudspeaker as intended and for optimal performance and protection of this speaker, Devine recommends you read this user manual.

Box contents:
1x Trono passive loudspeaker (Trono 10, Trono 12, Trono 15)

Warning!
- This loudspeaker is not suitable for use outside. Keep this speaker away from moisture and rain.
- This loudspeaker is capable of producing sound levels that may cause severe and permanent hearing damage.
- Make sure the speaker cabinet is installed on a proper surface when used. Place this speaker on the floor, on a professional speaker stand or on a suitable wall-bracket. Devine is not responsible for any damage caused by improper installation of this device.
- To clean this speaker from any dirt or dust and keep it in optimal shape, use a proper vacuum cleaner with carpet mouthpiece. The grill can be cleaned with a damp cloth or sponge with a non-aggressive soap solution. The grill can be detached for cleaning, but it is not recommended to remove it frequently. If you wish to clean the woofer and tweeter, use a dry cloth.

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Use of the speaker

This speaker is designed to perform in professional environments. Speech, music, or any other type of sound can be played trough this speaker.

For optimal performance, a suitable PA-amplifier is needed. Each Trono speaker has its own characteristics, based on the internal components. For every Trono speaker, there is a maximum power handling, optimized for the woofer and tweeter.

Devine advises to use a PA-amplifier which is able to provide about 1.5x more power than the RMS power handling of your speakers. The RMS values are measured with a static sinus and not with dynamic music, therefore it is safe to use this configuration. As the Trono speakers have a larger maximum peak power handling, they are capable of handling short peak power values.

This configuration is also beneficial for your PA-amplifier, as it does not have to work at full power to provide your speakers with optimal power. Make sure though that you do not exceed the maximum capability of your speakers, which occurs when you hear distorted sounds or when the CLIP LEDs on your amplifier are lit.

It is possible to connect another Trono speaker to the second output of your first Trono speaker. However, take notice that the impedance of your speaker system drops to 4 Ohm. Make sure your PA-amplifier is suitable for this impedance or contact your local dealer if you have any doubts, as wrong impedances might damage your speaker system permanently.

Use proper cable and proper connectors to connect your speakers and amplifier. Devine recommends to use prefabricated speakercables with pre-mounted connectors.
Devine also recommends the use of the lockable speaker connectors, for optimal reliability, but for convenience reasons there are also 6.35mm jack connectors and wire terminals positioned on the rear of the speaker.
When making your own speaker cables, only use good quality speaker cable with at least a 2x 1.5mm² core. Thin wiring and high power may result in melting cables!

Use your ears to make sure you don't blow up your speakers or cause any other damage to its internal components. When you hear any distortion or when your PA-amplifier is clipping, you need to decrease the volume on your mixer or amplifier.

All Trono series speakers are equipped with a 35mm stand adapter, which makes it possible to place the speaker on a suitable height. This makes the distribution of high and mid-frequencies easier. See the image for details. 35mm is a standard size for speaker stands, so most speaker stands will fit the speaker properly.

Warranty is void when damage to this speaker is caused by improper use. When any damage to this speaker occurs, please contact your local dealer for help.

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Features and technical data

	Trono 10	Trono 12	Trono 15
Passive speaker	x	x	x
Wooden enclosure	x	x	x
Black damping carpet finish	x	x	x
Bass-reflex cabinet	x	x	x
Protective grill	x	x	x
Woofer	10 inch	12 inch	15 inch
Tweeter	1 inch with dispersion horn		
Maximum RMS power	125W RMS	200W RMS	250W RMS
Maximum program power	250W	400W	500W
Maximum short peak power	500W	800W	1000W
Impedance	8 Ohm		
Handles on both sides	x	x	x
35mm stand adapter	x	x	x
2x Pro Speaker lock connector	x	x	x
2x 6.35mm jack connector	x	x	x
Wire terminal connectors	x	x	x
Sensitivity	90 dB (+/- 2dB)	92 dB (+/- 2dB)	92 dB (+/- 2dB)
Maximum SPL	117 dB	121 dB	122 dB
Size	370 x 265 x 510 mm	390 x 440 x 650 mm	440 x 475 x 750 mm
Weight	10.7 kg	17.32	22.40 kg

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